

**CLAIMS**What is claimed is:

1. A method for decision analysis and resolution, wherein an event is associated with a root cause, the method comprising the steps of:  
relating a solution to the root cause;  
determining whether the solution can resolve the event automatically;  
automatically resolving the event when the event can be resolved automatically;  
and  
providing information for resolving the event to a user when the event cannot be resolved automatically.
2. The method of claim 1, wherein the step of relating a solution to a root cause includes utilizing a solutions catalog.
3. The method of claim 1, wherein the step of relating a solution to a root cause includes chaining a series of solution objects to the root cause.
4. The method of claim 1, wherein the step of relating a solution to a root cause includes interoperating with a trouble ticket system.
5. The method of claim 1, wherein the events are related to object oriented constructs, wherein the object oriented constructs include underlying intelligence, wherein the intelligence includes relationships between the underlying object oriented constructs, wherein the step of determining whether the solution can resolve the event automatically utilizes the intelligence and the relationships to evaluate the validity of the solution.
6. The method of claim 5, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

7. The method of claim 5, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

8. The method of claim 1, wherein the step of determining whether the solution can resolve the event automatically includes determining whether a root cause has a statistically significant correlation with a defined set of tasks leading to a resolution of the event.

9. The method of claim 1, wherein the step of determining whether the solution can resolve the event automatically includes using object-oriented constructs.

10. The method of claim 1, wherein the step of determining whether the solution can resolve the event automatically includes allowing a user to prevent automated resolution.

11. The method of claim 1, wherein the step of automatically resolving the event includes providing information to a user by updating a trouble ticket.

12. The method of claim 1, wherein the step of providing information for resolving the event to a user includes presenting the user with suggested corrective actions.

13. The method of claim 1, wherein the step of providing information for resolving the event to a user includes evaluating the strength of relationships between a root cause construct and a resolution construct.

14. The method of claim 1, wherein the step of providing information for resolving the event to a user includes utilizing an object oriented model to define object constructs, wherein the constructs are then presented to the user.

15. The method of claim 1, wherein the step of providing information for resolving the event to a user includes a visualization of the information for resolving the event.

16. The method of claim 1, wherein the step of providing information for resolving the event to a user includes a visualization of the information for resolving the event, wherein the visualization includes providing an overlay, wherein the overlay offers information about the event.

17. The method of claim 1, wherein the step of providing information for resolving the event to a user includes providing a searchable knowledge base.

18. The method of claim 1, wherein the step of providing information for resolving the event to a user includes presenting a probability, wherein the probability is indicative of the success of the solution.

19. The method of claim 1, wherein the method is practiced in a network, further including the step of revising the network based on data generated while resolving the event.

20. The method of claim 19, wherein the step of revising the network includes revising a datastore within the network based on the event resolution.

21. The method of claim 1, wherein the method is practiced in a network, further including the step of distributing solutions in the network.

22. The method of claim 1, wherein the method is practiced in a network, further including the step of creating heuristics related to the solution, wherein the heuristics are configured to be available within the network to evaluate proposed solutions.

23. The method of claim 1, wherein the event is associated with a security fault.
24. The method of claim 1, wherein the event is associated with a network operational fault.
25. A network system configured to resolve network problem events correlated to root causes in an object-oriented environment, including:  
a resolution module configured to generate a proposed response to the detected event; and  
a solution module configured to resolve the detected event using the proposed response,  
wherein the resolution module is configured to cooperate with the solution module to automatically implement the proposed response,  
wherein the resolution module is configured to cooperate with the solution module to present the proposed response as a suggested response to resolve the detected event.
26. The system of claim 25, further including a user input module configured to allow a network user to initiate implementation of the proposed response.
27. The system of claim 25, wherein the resolution module further includes a heuristics module configured to track proposed responses to detected events.
28. The system of claim 27, wherein the heuristics module is configured to correlate proposed responses to successful and unsuccessful resolutions of detected events.
29. The system of claim 28, wherein the heuristics module is configured to solicit new responses to detected events based upon previous successful resolutions of similar detected events.

30. The system of claim 28, wherein the heuristics module is configured to present suggested responses to detected events based upon previous successful resolutions of similar detected events.

31. The system of claim 27, wherein the heuristics module is configured to generate automated responses to detected events based upon previous successful resolutions of similar previously selected responses.

32. The system of claim 31, wherein the heuristics module is configured to generate the automated responses based upon a predetermined success threshold for previously detected events.

33. The system of claim 32, wherein the heuristics module is configured to generate automated responses based upon previous optional responses once a success threshold for the previous optional responses has been reached.

34. A computer readable medium for decision analysis and resolution, wherein an event is associated with a root cause, the computer readable medium comprising:

- logic for relating a solution to the event based on the root cause;
- logic for determining whether the solution can resolve the event automatically;
- logic for automatically resolving the event when the event can be resolved automatically; and
- logic for providing information for resolving the event to a user when the event cannot be resolved automatically.

35. The computer readable medium of claim 34, wherein the logic for relating a solution to a root cause includes utilizing a solutions catalog.

36. The computer readable medium of claim 34, wherein the logic for relating a solution to a root cause includes chaining a series of solution objects to the root cause.

37. The computer readable medium of claim 34, wherein the logic for relating a solution to a root cause includes interoperating with a trouble ticket system.

38. The computer readable medium of claim 34, wherein the events are related to object oriented constructs, wherein the object oriented constructs include underlying intelligence, wherein the intelligence includes relationships between the underlying object oriented constructs, wherein the logic for determining whether the solution can resolve the event automatically utilizes the intelligence and the relationships to evaluate the validity of the solution.

39. The computer readable medium of claim 38, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

40. The computer readable medium of claim 38, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

41. The computer readable medium of claim 34, wherein the logic for determining whether the solution can resolve the event automatically includes determining whether a root cause has a statistically significant correlation with a defined set of tasks leading to a resolution of the event.

42. The computer readable medium of claim 34, wherein the logic for determining whether the solution can resolve the event automatically includes using object-oriented constructs.

43. The computer readable medium of claim 34, wherein the logic for determining whether the solution can resolve the event automatically includes allowing a user to prevent automated resolution.

44. The computer readable medium of claim 34, wherein the logic for automatically resolving the event includes providing information to a user by updating a trouble ticket.

45. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes presenting the user with suggested corrective actions.

46. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes evaluating the strength of relationships between a root cause constructs and a resolution construct.

47. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes utilizing an object oriented model to define object constructs, wherein the constructs are then presented to the user.

48. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes a visualization of the information for resolving the event.

49. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes a visualization of the information for resolving the event, wherein the visualization includes providing an overlay, wherein the overlay offers information about the event.

50. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes providing a searchable knowledge base.

51. The computer readable medium of claim 34, wherein the logic for providing information for resolving the event to a user includes presenting a probability, wherein the probability is indicative of the success of the solution.

52. The computer readable medium of claim 34, wherein the computer readable medium resides in a network, further including logic for revising the network based on data generated while resolving the event.

53. The computer readable medium of claim 52, wherein the logic for revising the network includes revising a datastore within the network based on the event resolution.

54. The computer readable medium of claim 34, wherein the computer readable medium resides in a network, further including logic for distributing solutions in the network.

55. The computer readable medium of claim 34, wherein the computer readable medium resides in a network, further including logic for creating heuristics related to the solution, wherein the heuristics are configured to be available within the network to evaluate proposed solutions.

56. The computer readable medium of claim 34, wherein the event is associated with a security fault.

57. The computer readable medium of claim 34, wherein the event is associated with a network operational fault.



58. A system for decision analysis and resolution, wherein an event is associated with a root cause, the system comprising:

- means for relating a solution to the event based on the root cause;
- means for determining whether the solution can resolve the event automatically;
- means for automatically resolving the event when the event can be resolved automatically; and
- means for providing information for resolving the event to a user when the event cannot be resolved automatically.

59. The system of claim 58, wherein the means for relating a solution to a root cause includes utilizing a solutions catalog.

60. The system of claim 58, wherein the means for relating a solution to a root cause includes chaining a series of solution objects to the root cause.

61. The system of claim 58, wherein the means for relating a solution to a root cause includes interoperating with a trouble ticket system.

62. The system of claim 58, wherein the events are related to object oriented constructs, wherein the object oriented constructs include underlying intelligence, wherein the intelligence includes relationships between the underlying object oriented constructs, wherein the means for determining whether the solution can resolve the event automatically utilizes the intelligence and the relationships to evaluate the validity of the solution.

63. The system of claim 62, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

64. The system of claim 62, wherein the validity of the solution is based upon previous success in resolving the event and descriptions of the related root cause.

65. The system of claim 58, wherein the means for determining whether the solution can resolve the event automatically includes determining whether a root cause has a statistically significant correlation with a defined set of tasks leading to a resolution of the event.

66. The system of claim 58, wherein the means for determining whether the solution can resolve the event automatically includes using object-oriented constructs.

67. The system of claim 58, wherein the means for determining whether the solution can resolve the event automatically includes allowing a user to prevent automated resolution.

68. The system of claim 58, wherein the means for automatically resolving the event includes providing information to a user by updating a trouble ticket.

69. The system of claim 58, wherein the means for providing information for resolving the event to a user includes presenting the user with suggested corrective actions.

70. The system of claim 58, wherein the means for providing information for resolving the event to a user includes evaluating the strength of relationships between a root cause constructs and a resolution construct.

71. The system of claim 58, wherein the means for providing information for resolving the event to a user includes utilizing an object oriented model to define object constructs, wherein the constructs are then presented to the user.

72. The system of claim 58, wherein the means for providing information for resolving the event to a user includes a visualization of the information for resolving the event.

73. The system of claim 58, wherein the means for providing information for resolving the event to a user includes a visualization of the information for resolving the event, wherein the visualization includes providing an overlay, wherein the overlay offers information about the event.

74. The system of claim 58, wherein the means for providing information for resolving the event to a user includes providing a searchable knowledge base.

75. The system of claim 58, wherein the means for providing information for resolving the event to a user includes presenting a probability, wherein the probability is indicative of the success of the solution.

76. The system of claim 58, wherein the computer readable medium resides in a network, further including means for revising the network based on data generated while resolving the event.

77. The system of claim 52, wherein the means for revising the network includes revising a datastore within the network based on the event resolution.

78. The system of claim 58, wherein the computer readable medium resides in a network, further including means for distributing solutions in the network.

79. The system of claim 58, wherein the computer readable medium resides in a network, further including means for creating heuristics related to the solution, wherein the heuristics are configured to be available within the network to evaluate proposed solutions.

80. The system of claim 58, wherein the event is associated with a security fault.

81. The system of claim 58, wherein the event is associated with a network operational fault.